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A colon after initial designates the most common given name, as: A: Augustus; B: Benjamin; C: Charles; D: David; E: Edward; F: Frederic; G: George; H: Henry; I: Isaac; J: John; K: Karl; L: Louis; M: Mark; N: Nicholas; O: Otto; P: Peter; R: Richard; S: Samuel; T: Thomas; W: William. The initials at the end of each record, or note, are those of the recorder.

Corrections of errors and notices of omissions are solicited.

Anderson, Joseph, jr. Urticating properties of lepidoptera. (Entomologist, Feb. 1885, v. 18, p. 43-45.)

Discussion of stinging hairs of larvae of *bombycidae*; quotation of the part of G: Dimmock's "On some glands which open externally on insects" (Psyche, Sep.-Oct. 1882 [1 Mar. 1884], v. 3, p. 387-401) [Rec., 2985] which pertains to this subject. G: D. (3975)

Anderson, Joseph, jr. The urticating properties of the hairs of some lepidoptera. (Entomologist, Dec. 1884, v. 17, p. 275-276.)

Reports that the imago as well as the larvae of *Li. paris* possess urticating properties, and discusses the probable causes. G: D. (3976)

Balding, G: Urticating properties of lepidoptera. (Entomologist, Feb. 1885, v. 18, p. 41-43.)

Discusses cause of urtication produced by the larvae of certain *bombycidae*; quotes portions of G: Dimmock's "On some glands which open externally on insects" (Psyche, Sep.-Oct. 1882 [1 Mar. 1884], v. 3, p. 387-401) [Rec., 2985]. G: D. (3977)

[**Bertkau, Philipp.**] Duftapparat an schmetterlingsbeinen. ("Kölnische zeitung" . . .) (Entom. nachrichten, 1 Sept. 1879, jahrg. 5, p. 223-224.)

Abstract, by E: Burgess. (Psyche, March [1 May] 1880, v. 3, p. 32.)

Describes glandular apparatus on the posterior tibiae of *hepialus lecta*, to be used in connection with another apparatus on the first abdominal segment to distribute an odor for sexual purposes. G: D. (3978)

Bessey, C: Edwin. A new species of insect-destroying fungus. (Amer. nat., Dec. [28 Nov.] 1883, v. 17, p. 1280-1281.)

Reprint in H. Osborn's "Notes on locust parasite" (Bull. Iowa agric. coll., Aug. 1884, no. 2), p. 84-85.

Describes the *tarichium* stage of *entomophthora calopteni*, a new species of fungus parasitic in *caloptenus differentialis*. G: D. (3979)

Briggs, T. R. Archer. On the fertilization of the primrose (*primula vulgaris*, Huds.). (Journal of botany, 1870, v. 8, p. 190-191.)

The writer does not agree with C: Darwin in his "On the specific differences between *primula veris*, Br. Fl., *p. vulgaris*, Br. Fl., and *p. elatior*, Jacq. . . ." (Journ. Linn. Soc., Bot., 19 Mar. 1868, v. 10, p. 437-451) [Rec., 2377] in believing that *primula vulgaris* is fertilized almost exclusively by moths. He finds the flowers visited by *anthophora acervoium*, *andrea gwynana*, *goeapteryx rhanni*, and *bombylius medius*. W: T. (3980)

Brongniart, C: Sur un gigantesque neurothoptère, provenant des terrains houillers de Commeny (Allier). (Comptes-rendus Acad. sci. France, 31 Mar. 1884, v. 98, p. 832-833.)

Brief account of the discovery of *dictyoneura goldenbergi*, and notice of its affinities with other fossil orthoptera. G: D. (3981)

Camerano, Lorenzo. Ricerche intorno alla struttura dei peli-ventose dei tarsi dei coleotteri. Laboratorio del Regio museo zoologico di Torino. (Atti Accad. sci. di Torino, 1879, v. 14, p. 1148-1164.)

Separate. Torino, 1879. t.-p. cover + 20 p., 2 pl., 24 X 16, t 15 X 9.

Notice. (BERTKAU, P. Bericht . . . der entom. f. 1879, 1881, p. 260.)

Describes and figures the tarsal hairs of species chosen from twelve families of coleoptera. G: D. (3982)

Candèze, Ernest. Les moyens de attaque et de défense chez les insectes. Lecture faite à la séance publique annuelle de la classe des sciences de l'Académie royale du 16 décembre 1874. (Bull. Acad. roy. . . Belg., 1874, s. 2, v. 38, p. 787-816.)

Separate. Bruxelles, F. Hayez, 1874. t.-p. cover, 32 p., 22 X 15, t 15 X 8.7.

Notice. (Naturaliste canadien, Mar. 1875, v. 7, p. 92-93.) [Rec., 764 b.]

Popular lecture on the means of attack and of defense employed by insects. G: D. (3983)

Carlet, G. Sur les muscles de l'abdomen de l'abeille. (Comptes-rendus Acad. sci. France, 24 Mch. 1884, v. 98, p. 758-759.)

Nomenclature proposed for the abdominal muscles of *apis*: these muscles, with the exception of the aliform ones which aid circulation, have respiratory movements as their chief function; these movements take place in the direction of all three diameters of the abdomen.

G: D. (3684)

Carlet, G. Sur le venin des hyménoptères et ses organes sécréteurs. (Comptes-rendus Acad. sci. France, 23 June 1884, v. 98, p. 1550-1551.)

Abstract. (Journ. Roy. micros. soc., Oct. 1884, s. 2, v. 4, p. 739.)

The poison of the sting of hymenoptera, altho acid, is the product of a mixture of secretions from two glands, one of which produces strongly acid, the other weak alkaline secretion; the presence of both these secretions is necessary for the toxic effect of the sting.

G: D. (3685)

Chambers, Vactor Tousey. On the changes that take place in the mouth-parts and legs of some leaf-mining lepidopterous larvae. (Amer. entom., Nov. 1880, v. 3, n. s., v. 1, p. 255-262, 316 cm., fig. 124-137, 139-144.)

Supplement, [by C. V. Riley], entitled "Mandible of *lithocolletis guttifimbrella*." (*op. cit.*, Dec., p. 294, 7 cm., fig. 138.)

Description and figures of mouth-parts of larvae of several genera of *tineina*; description of changes that take place in these mouth-parts and in the legs, and application of the facts observed to the theory of evolution.

B: P. M. (3686)

Chambers, Vactor Tousey. Wandering habit of larvae belonging to the genus *bucculatrix*. (Amer. entom., Feb. 1880, v. 3, n. s., v. 1, p. 50, 9 cm.)

Larvae of *bucculatrix* have the habit of wandering away from their food plants, frequently, to pupate, so that finding the pupae on a plant is not evidence that such is the food-plant; cocoons of *b. pomifoliella* found on *sambucus*; *b. thuiella* and *b. ambrosiella* may not feed on *thuja* and *ambrosia* respectively.

B: P. M. (3687)

Chapman, A. W. On the preparatory stages of certain Florida butterflies. (Can. entom., Oct. 1879, v. 11, p. 189-193.)

Describes larva and pupa of *pamphila phyleus*, *p. brevis*, *p. acinus*, *p. maculata*, *p. arpa*, *p. delaware*, larva of *p. paluba* and *andromus protus*, and egg of *p. brevis*, with notes on food-plants; introductory note and comparisons of these descriptions with those based on Abbot's figures, by W. H. Edwards.

B: P. M. (3688)

Chapman, I. Some observations on the hessian fly: written in the year 1797. (Memoirs Phil. soc. promot. agric., 1826, v. 5, p. 143-153.)

History of *ceridomyia destructor*, in Bucks co., Pa., from 1780 to 1790; its natural history and seasons; description of it in all stages; precautions against it.

B: P. M. (3689)

Cholodkowsky, N. Sur les vaisseaux de Malpighi chez les lépidoptères. (Comptes-rendus Acad. sci. France, 10 Mar. 1884, v. 98, p. 631-633.)

Tineola biselliella (? = *tinea pellionella*) and *tinea rusticella* have only two Malpighian vessels, while their larvae have four; this reduction of number of Malpighian vessels in the imago is regarded as a kind of peridodic atavism.

G: D. (3690)

Clemens, Brackenridge. American micro-lepidoptera. (Proc. Entom. soc. Philad., Mar. 1863, v. 2, p. 314.)

Reprint. (CLEMENS, B. The *tineina* of North America . . . Stainton. Lond., 1872, p. 207-221.)

Re-describes the genera *colcophora*, *glyphipteryx*, *grauhararia*, *gelechia*; describes the new genus *marmara* and to new species of *tineina*; description of habits of imago of *strobilia lepidodella* n. sp., of mines of larvae of *parectopa robinella*, *marmara salicella*, *phyllocnistis liriodendronella* and *tischeria quercitella*, and larvae and larval habits of some of the species; discusses the species named *anacamptis robinella* and *argyro-miges pseudaciella* by Asa Fitch.

B: P. M. (3691)

Clemens, Brackenridge. American micro-lepidoptera. (Proc. Entom. soc. Philad., Aug. 1863, v. 2, p. 119-129.)

Reprint. (CLEMENS, B. The *tineina* of North America . . . Stainton. Lond., 1872, p. 222-236.)

Re-describes the genera *ypsolophus*, *depressaria*, *emcostoma*?, and *chauliodus*?; describes the new genera *holocera*, *brachyoma* and *homostia* (group of *tinea*), and 21 new species of *tineina*; gives synoptical table of 19 species of *gelechia*; remarks on larval habits of *depressaria*.

B: P. M. (3692)

Clemens, Brackenridge. Micro-lepidopterous larvae. Notes on a few species, the imagos of which are probably undescribed. (Proc. Entom. soc. Philad., Nov. 1861, v. 1, p. 75-87.)

Reprint. (CLEMENS, B. The *tineina* of North America . . . Stainton. Lond., 1872, p. 161-178.)

Remarks on the characteristic appearance of the mines of leaf-miners, and the ease and interest of rearing leaf-miners; directions for collecting, observing and rearing these insects; monthly calendar showing when the larvae mentioned should be sought; descriptions of mines and habits of larvae of 7 species of *colcophora*, 2 *lithocolletis*, 2 *aspidisca*, 14 *nepticula*, 1 *ornix*, 3 *cutestega*.

B: P. M. (3693)

Clemens, Brackenridge. New American micro-lepidoptera. (Proc. Entom. soc. Philad., Jan. 1862, v. 1, p. 131-137.)

Reprint. (CLEMENS, B. The *tineina* of North America . . . Stainton. Lond., 1872, p. 179-188.)

Describes the genera *opostega*, *solenobia*?, *lyonella*, *tenaga* n. g., *hybrama* n. g., and the new species *opostega alboalericella*, *trichotapha alacella*, *solenobia*?, *zwalshella*, *nepticula fuscotibiella*, n. bifasciella, n. *platanella*, *lyonella speculella*, *tenaga pomiliella*, *hybrama servidella*, *dysodia margaritana*; remarks on the larval habits of the *solenobia*? and those of a *phyllocnistis*?; *gelechia*? *flavocostella* is a *trichotapha*. [The reprint omits the description of *dysodia margaritana*.]

B: P. M. (3694)

Clemens, Brackenridge. North American micro-lepidoptera. (Proc. Entom. soc. Philad., Mar. 1862, v. 1, p. 147-151.)

Reprint. (CLEMENS, B. The *tineina* of North America . . . Stainton. Lond., 1872, p. 189-194.)

Description of larva, pupa and mine of *bedellia simulentella* n. sp.; habits and affinities of larva and imago. Descriptions of mines of *nepticula platani* and two other species of *nepticula* in leaves of *platanus*; descriptions of larvae of the two new species; directions for rearing leaf-mining larvae. B. P. M. (3695)

Clemens, Brackenridge. North American micro-lepidoptera. (Proc. Entom. soc. Philad., Mar. 1864, v. 2, p. 415-460.)

Reprint. (CLEMENS, B. The *tineina* of North America . . . Stainton. Lond., 1872, p. 237-256.)

Re-describes the gener. *adela*, *dusycera*; *anesychia*, *elachista*?; describes the new genera *walshii*, *hamadryus*, *cyctoplasis*, *zollisonia*; describes 3 new species of *trictina*, 3 of *tortricina* and *crambus inornatellus* n. sp., from Labrador, and to new *tineina* from United States, remarks on other species. [The reprint omits the descriptions of the *tortricina* and *crambus*.] B. P. M. (3696)

Clemens, Brackenridge. North American micro-lepidoptera. (Proc. Entom. soc. Philad., Dec. 1864, v. 3, p. 505-520, fig. 1-5.)

Reprint of p. 505-508. (CLEMENS, B. The *tineina* of North America . . . Stainton. Lond., 1872, p. 257-263.)

Describes 5 new species of *tineina* and 25 new species of *tortricina*, with some re-descriptions and notes on habits; re-describes the genera *ditula*?, *ptycholoma*? and *steganoptycha*? (all *tortricina*), and figures the neuuration of wings and structure of palpi of *anclioptera*, *ptycholoma*? and *steganoptycha*?; synopsis of the groups and list of species of *anclioptera*. [Only the portion relating to *tineina* is reprinted.] B. P. M. (3697)

Clemens, Brackenridge. North American micro-lepidoptera. (Proc. Entom. soc. Philad., Sep. 1865, v. 5, p. 133-147, il.)

Reprint from p. 142-147. (CLEMENS, B. The *tineina* of North America . . . Stainton. Lond., 1872, p. 264-273, 1 fig.)

Describes 21 new species and the following 3 new genera of *tortricina*, viz. *leptoris*, *eurypychia*, *callimoscama*; *exartema* = *sericoris*; re-describes the genus *batrachetra* and describes as new species *b. salicis-pomonella*, *buculatrix trifasciella* and *incurvaria mediantrella*; gives extensive notes, by B. D. Walsh, on the food-habits of the *batrachetra*, with description of larva; re-describes *gracilaria violucella* (re-named *g. desmodioliella*); describes imago of *nepticula saginella*, with notes on the habits of this species and of *buculatrix trifasciella*; lists and synoptical tables of the described species of *stigmionota*, *sericoris*, *lozotaenia*, *steganoptycha*, *gracilaria* and *nepticula*; figures neuuration of wings and structure of palpi of *leptoris*, *callimoscama* and *batrachetra*. [Only the portion on the *tineina* is reprinted.] B. D. Walsh states, in his "The joint worm" (Pract. entom., 27 Nov. 1895, v. 1), p. 11, that *eurypychia saligneana* was bred from a gall on *solidago*. B. P. M. (3698)

Clemens, Brackenridge. Notes on *thyridopteryx ephemeraeformis*. (Proc. Entom. soc. Philad., Nov. 1866, v. 6, p. 221-222.)

Extract. (CLEMENS, B. The *tineina* of North America . . . Stainton. Lond., 1872, p. 274.)

Discussion of the synonymy of "*sphinx ephemeraeformis*" of Haworth = *thyridopteryx ephemeraeformis*; reprint of Stephens' generic diagnosis of *thyridopteryx* (Ill. Brit. entom. . . Faust, Lond., 1828, v. 1, p. 145) B. P. M. (3699)

Comstock, J. H. The apple maggot. *Trypeta pomonella* Walsh. (Rept. [U. S.] commiss. agric., for 1881 and 1882, 1882 [Jan. 1883], p. 195-198, pl. 14.) (COMSTOCK, J. H.: Report on insects for the year 1881 . . . 1882, p. 3-6, pl. 14.) (RILEY, C. V.: Report of the entomologist . . . [1 Dec.] 1882, p. 195-198 [135-138], pl. 14.)

Food plants, ravages and geographical distribution of and means against *trypeta pomonella*; localities in which ravages occur; description and figures of larva, pupa and imago and of respiratory apparatus. B. P. M. (3700)

Comstock, J. H. [Carnivorous habits of a pyralid moth.] (Can. entom., Oct. 1879, v. 11, p. 196.)

Carnivorous habits of [*dokruma coecidivora*] B. P. M. (3701)

Comstock, J. H. [Habits of species of *retinia* injurious to pine trees.] (Can. entom., Sep. 1879, v. 11, p. 176.)

Food habits of *retinia* [*frustrana*] and of *r. rigida* Dana]. B. P. M. (3702)

Comstock, J. H. Lac insects. (Rept. [U. S.] commiss. agric., for 1881 and 1882, 1882 [Jan. 1883], p. 209-213, pl. 19; pl. 20, fig. 1.) (COMSTOCK, J. H.: Report on insects for the year 1881 . . . 1882, p. 17-21, pl. 19; pl. 20, fig. 1.) (RILEY, C. V.: Report of the entomologist . . . [1 Dec.] 1882, p. 209-213 [149-153], pl. 19; pl. 20, fig. 1.)

Describes the generic characters of *carteric* and describes and figures *c. loeca*, *c. tarrea* n. sp. and *c. mexicana* n. sp.; references to articles on *c. loeca* B. P. M. (3703)

Comstock, J. H. Ladybirds. *Coccinellidae*. (Rept. [U. S.] commiss. agric., for 1881 and 1882, 1882 [Jan. 1883], p. 204-206, pl. 18.) (COMSTOCK, J. H.: Report on insects for the year 1881 . . . 1882, p. 12-14, pl. 18.) (RILEY, C. V.: Report of the entomologist . . . [1 Dec.] 1882, p. 204-206 [144-146], pl. 18.)

Habits of *coccinellidae*, descriptions and figures of larva, pupa and imago of *cydonia abdominalis*, *c. sanguinea*, *chilocorus cacti* and *hippodamia ambigua*, and of imago of *cydonia ocellata*, *coccinella quinque-notata* var. *californica*, and *hippodamia convergens* B. P. M. (3704)

Comstock, J. H.: Methods of destroying scale insects. (Rept. [U. S.] commiss. agric., for 1881 and 1882, 1882 [Jan. 1883], p. 206-209.) (Comstock, J. H.: Report on insects for the year 1881 . . . 1882, p. 14-17.) (RILEY, C. V.: Report of the entomologist . . . [1 Dec.] 1882, p. 206-209 [146-149].)

Introduces letters from S. F. Chapin and Matthew Cooke, to show the beneficial effect of the use of lye and whale-oil soap and sulphur as means against *coccidae* and *trombididae* on orchard trees, and the superiority of these substances to kerosene for the purpose; method of spraying trees and use of a "bamboo extension" for carrying spray into large trees. Preceded by an interjected critical review, by C. V. Riley. The "author's edition" of Comstock contains a reply to this review and the "author's edition" of Riley contains a rejoinder to this reply; both inserted on fly slips.

B: P. M. (3705)

Comstock, J. H.: On a new predaceous lepidopterous insect. (N. A. entom., Oct. 1879, v. 1, p. 25-29, pl. 4.)

Description and figures of egg, mature larva, pupa and imago of *dakrussa coccidivora* n. sp., predatory on *pulsuarina innumabilis*; description of newly hatched larva; habits and seasons of larva and imago; discussion of accounts of parasitic, inquilinous and predaceous lepidopterous larvae hitherto observed.

B: P. M. (3704)

Comstock, J. H.: A new wax insect. (Rept. [U. S.] commiss. agric., for 1881 and 1882, 1882 [Jan. 1883], p. 213-214, pl. 20, fig. 2.) (Comstock, J. H.: Report on insects for the year 1881 . . . 1882, p. 21-22, pl. 20, fig. 2.) (RILEY, C. V.: Report of the entomologist . . . [1 Dec.] 1882, p. 213-214 [153-154], pl. 20, fig. 2.)

Description of *ceroneatus* n. g. [*coccidae*] and *e. quercus* n. sp., from twigs of several species of *quercus*; description and figure of sacs of male and female and of body of female.

B: P. M. (3707)

Comstock, J. H.: Note on the structure of mealy bugs. (Rept. [U. S.] commiss. agric., for 1881 and 1882, 1882 [Jan. 1883], p. 214.) (Comstock, J. H.: Report on insects for the year 1881 . . . 1882, p. 22.) (RILEY, C. V.: Report of the entomologist . . . [1 Dec.] 1882, p. 214 [151].)

Position of opening of oviduct in *dactylopius*, and presumably in other *coccinae*; anal ring improperly called ano-genital ring; position and homology of dorsal secretory openings.

B: P. M. (3708)

Comstock, J. H.: The ocellate leaf gall of red maple. *Sciara ocellaris* O. S. (Rept. [U. S.] commiss. agric., for 1881 and 1882, 1882 [Jan. 1883], p. 202-204, pl. 17.) (Comstock, J. H.: Report on insects for the year 1881 . . . 1882, p. 10-12, pl. 17.) (RILEY, C. V.: Report of the entomologist . . . [1 Dec.] 1882, p. 202-204 [142-144], pl. 17.)

Habits, ravages and synonymy of *sciara ocellaris*; description and figures of gall, larva and male imago; figures of cocoon and pupa-skin; habits of *sciara* and of *s. tillicola*, description of gall of *s. tillicola*.

B: P. M. (3709)

Comstock, J. H.: [Plan of formation of the biological collection of insects in the Department of agriculture at Washington.] (Can. entom., Nov. 1879, v. 11, p. 202-203.)

Response of Comstock to requests for information; subject expressed by title. Remarks of S. H. Scudder on the importance of the formation of a national collection at Washington.

B: P. M. (3710)

Comstock, J. H.: The pretty pomace-fly. *Drosophila amoena* Loew. (Rept. [U. S.] commiss. agric., for 1881 and 1882, 1882 [Jan. 1883], p. 201-202, pl. 16.) (Comstock, J. H.: Report on insects for the year 1881 . . . 1882, p. 9-10, pl. 16.) (RILEY, C. V.: Report of the entomologist . . . [1 Dec.] 1882, p. 201-202 [141-142], pl. 16.)

Habits and period of development of and means against *drosophila amoena*; description and figures of larva, pupa and imago and of respiratory apparatus.

B: P. M. (3711)

Comstock, J. H.: Report on miscellaneous insects. (Rept. [U. S.] commiss. agric., for 1881 and 1882, 1882 [Jan. 1883], p. 195-214, pl. 14-20.) (RILEY, C. V.: Report of the entomologist . . . [1 Dec.] 1882, p. 195-214 [135-154], pl. 14-20.)

Separate, entitled "Report on insects for the year 1881. Author's edition. From the annual report of the Department of agriculture for the year 1881." Wash., 1882. t.-p. cover + t.-p., 22 p., pl. 14-20, 23 X 15.

Contents of the following sub-chapters, all cited under the name of J. H. Comstock:—The apple maggot, *Trypeta pomonella* Walsh [Rec., 3700].—The vine-loving pomace-fly, *Drosophila ampelophila* Loew [Rec., 3714].—The pretty pomace-fly, *Drosophila amoena* Loew [Rec., 3711].—The ocellate leaf gall of red maple, *Sciara ocellaris* O. S. [Rec., 3709].—Ladybirds, *Coccinellidae* [Rec., 3704].—Methods of destroying scale insects [Rec., 3705].—Lac insects [Rec., 3703].—A new wax insect [Rec., 3707].—Note on the structure of mealy bugs [Rec., 3708].

B: P. M. (3712)

Comstock, J. H.: [Spread of the Colorado potato beetle into Manitoba.] (Can. entom. Oct. 1879, v. 11, p. 196.)

Doryphora decemlineata found in Manitoba in 1879, its most northern habitat so far known.

B: P. M. (3713)

Comstock, J. H.: The vine-loving pomace-fly. *Drosophila ampelophila* Loew. (Rept. [U. S.] commiss. agric., for 1881 and 1882, 1882 [Jan. 1883], p. 198-201, pl. 15.) (Comstock, J. H.: Report on insects for the year 1881 . . . 1882, p. 6-9, pl. 15.) (RILEY, C. V.: Report of the entomologist . . . [1 Dec.] 1882, p. 108-201 [138-141], pl. 15.)

Habits and ravages and period of development of and means against *drosophila ampelophila*; description and figures of egg, larva, pupa and imago and of respiratory apparatus.

B: P. M. (3714)

[Connecticut board of agriculture.] Poultry. (4th ann. rept. secr. Conn. board agric., for 1869-1870, 1870, p. 9-45.)

Communications and discussion on poultry-raising; includes, on p. 12-13, 18, 22, 26, 27, 30-36, 41-44, remarks on insects and worms injurious to fowl, and means against them, and on the usefulness of fowl as destroyers of insects, by T. S. Gold, P. M. Augur, W. H. Brewer, H. S. Collins, J. N. Blakeslee, W. A. Browning, N. Cressy, W. Plumb, — Hunt, J. M. Hubbard.

B: P. M. (3715)

Connecticut board of agriculture — *Entomologist*, 1872 (Sidney Irving Smith). Address of the state entomologist [with discussion]. (5th ann. rept. secr. Conn. board agric., for 1871-72, 1872, p. 203-234.)

Vote of thanks for the address. (*op. cit.*, p. 235.)

Ravages and usefulness and abundance and disappearances of and valid and invalid means against insects; importance to the farmer of a knowledge of entomology; special account of *sphenophorus sculptilis* (called *s. zeae*), *s. robustus*, *brachius obsoletus*, *lema trilineata* and (by J. S. Gould) *cecidomyia tritici*, with brief mention of numerous other insects and of means against insects, especially the use of dust or powders to kill moist-bodied insects, and the influence of parasites; discussion participated in by — Riags, W. W. White, S. W. Johnson, — Danielson, J. S. Gould, and author.

B: P. M. (3716)

Connecticut board of agriculture — *Secretary*. 4th annual report. . . 1869-70. Printed by order of the legislature. Hartford, 1870. 423 p., [9 pl.], 24 × 15, il.

Contains a remark on means against *dermatodectes avis*, on p. 126, and articles of entomological contents recorded under the following titles: — CONNECTICUT BOARD OF AGRICULTURE. Poultry [Rec., 3715], p. 9-45. — VERRILL, A. E. The external parasites of domestic animals; their effects and remedies [Rec., 3568], p. 72-122. — VERRILL, A. E. The internal parasites of domestic animals; their effects and remedies [Rec., 3569], p. 162-250.

B: P. M. (3717)

Connecticut board of agriculture — *Secretary*. 5th annual report. . . 1871-72. Printed by order of the legislature. Hartford, 1872. 386 p., [1 pl.], 24 × 15.

Contains a minute (p. 10) of the election of Sidney Irving Smith to be entomologist of the Connecticut board of agriculture, 10 Aug. 1871, and (p. 13) of an appropriation of \$200 to him, for investigations of insects; also remarks (p. 177, 178, 182, 204) on *macroscila carolina* and ear-worms as injuring tobacco plants, and means against them; and articles of entomological contents recorded under the following titles: — CONNECTICUT BOARD OF AGRICULTURE — *Entomologist*, 1872. Address of the state entomologist [Rec., 3716], p. 203-234-235. — VERRILL, A. E. Additional observations on the parasites of man and domestic animals [Rec., 3569], p. 321-342.

B: P. M. (3718)

Coquillett, Daniel W.: Description of noctuid larvae. (N. A. entom., Jan. 1880, v. 1, p. 52.)

Describes larvae of *telesilla cinereola*, *crambodes tulidiformis* and *adipsophanes miscellus*.

B: P. M. (3710)

Darwin, C. Ueber die einrichtungen zur befruchtung britischer und ausländischer orchideen durch insecten, und über die günstigen erfolge der wechselfebefruchtung". Stuttgart, 1862.

Germ. tr., by H. G. Brown, of Darwin's "On the various contrivances by which British and foreign orchids are fertilized by insects" . . . [Rec., 2378].

H: T. (3720)

Dewitz, Hermann. Ueber das durch die foramina repugnatoria entleerte sekret bei *glomeris*. (Biolog. centralbl., June 1884. bd. 4, p. 202-203.)

Discusses the function of the adhesive secretion of the foramina repugnatoria which in *glomeris* are unpaired along the middle line of the dorsum.

G: D. (3721)

Doppelrolle des stachels der honigbienen (Ueber eine). Deutsch-amer. apothekerzeitung, 15 Jan. 1885. jahrg. 5, p. 664, 46 cm.)

Engl. tr., by B: P. Mann, entitled "The double role of the sting of the honey-bee." (Psyche, Jan.-Mar. 1885, v. 4, p. 245-246.)

From "Ind. blatter." Remarks on the function of the sting of *apis mellifica* as introducing formic acid into the honey stored in cells, and on the preservative action of the formic acid upon honey. B: P. M. (3722)

Emerton, James H.: New England spiders of the family *theridiidae*. (Trans. Conn. acad. arts and sciences, 1884, v. 6, p. 1-86. pl. 1-24.)

Separate. [New Haven, Conn., 1882.] 1-p. cover, p. 1-86, pl. 1-24. 25 × 15, t 18 × 10.5.

External anatomy of the *theridiidae*, and literature of New England species; descriptions of 134 New England species, with notes on localities of capture and on habits, and with numerous figures; describes 85 new species belonging to the genera *theridium*, *minetus*, *stetoda*, *eryopsis*, *ulesanis*, *pholcomma*, *ceratinella*, *cornicularia*, *lophomma*, *lophocarenum*, *lneticus*, *erigone*, *lmyphia*, *diplostylo*, *bathyphantes*, *bolyphantes* and *microneta*, and to the new genera *ceratinopsis*, *grammonota*, and *spiropalpus*; a new genus, *theridula*, was made to include *theridion sphaerula* Hentz and the European *theridion gonygaster* Simon.

G: D. (3723)

Fletcher, James. [Correspondence.] (Can. entom., Feb. [18 Mar.] 1883, v. 15, p. 40.)

Rev. of T. W. Fyles' "Notes on a gall mite of the nettle tree" . . . (*op. cit.*, Oct. [14 Dec.] 1882, v. 14, p. 198-199) [Rec., 3727]; identification, as *psylla celtidis uanoma*, of the insect described in Fyles' article, and remarks on the gall, and on the geographical distribution of *celtis occidentalis* in Canada. [For a reply to this review, see T: W. Fyles' "The parasite of *phylloxera vustratrix*" . . . (*op. cit.*, [26] May 1883 [Rec., 3728]), p. 84.]

B: P. M. (3724)

F[ournier?], E[ng.]. [Rev. of] DARWIN, C.: On the various contrivances by which British and foreign orchids are fertilized by insects, and on the good effects of intercrossing. . . (Bull. Soc. bot. de France. Aug. 1862, v. 9, p. 243-246.) H: T. (3725)

Fyles, T. W. Description of a dipterous parasite of *Phylloxera vastatrix*. (Can. entom., Dec. 1882 [29 Jan. 1883], v. 14, p. 237-238, fig. 25.)

Crit. rev. in C. V. Riley's "Dipterous parasites of the *Phylloxera vastatrix*" (*op. cit.*, Feb. 18 Mch.] 1883, v. 15, p. 39.)

Description of males of larva, pupa and imago of *Phylloxera vastatrix*, sp., account, by W. Saunders, of the imago in the larva of this insect in leaf galls of *Phylloxera vastatrix*. (B: P. M. 3729)

Fyles, T. W. Notes on a gall mite of the nettle tree, *Celtis occidentalis*. (Can. entom., Oct. [14 Dec.] 1882, v. 14, p. 198-199.)

Rev., by J. Fletcher, entitled "Correspondence!" (*op. cit.*, Feb. [9 Mar.] 1883, v. 15, p. 40.)

Reply to Fletcher's rev., in author's "The parasite of *Phylloxera vastatrix*"... (*op. cit.*, [26 May 1883, v. 15], p. 81.)

Rev. in C. V. Riley's "Hackberry psyllid galls" (*op. cit.*, Aug. [1 Sep.] 1883, v. 15, p. 157-159, fig. 6-7).

Description of gall and of immature and mature mite. (Can. unannounced "mite" later determined as *Psylla canescens*.) (B: P. M. 3727)

Fyles, T. W. The parasite of *Phylloxera vastatrix*, and the gall insect of the nettle tree. (Can. entom., [16] May 1883, v. 15, p. 83-84.)

Crit. rev. in C. V. Riley's "Hackberry psyllid galls" (*op. cit.*, Aug. [5 Sep.] 1883, p. 157-159, fig. 6-7).

Common notes by H. A. Hagen on the insects described as *Phylloxera vastatrix* and *Phylloxera vastatrix* in author's "Description of a dipterous parasite of *Phylloxera vastatrix*" (*op. cit.*, Dec. 1882 [20 Jan. 1883], v. 14, p. 237-238, fig. 25). Rev., 3721, and on the "gall-mite" described in author's "Notes on a gall mite of the nettle tree, *Celtis occidentalis*" (*op. cit.*, Oct. [14 Dec.] 1882, v. 14, p. 168-169). [Rev., 3727, the former insect is a cecidomyid, but not certainly a *diplosis*; the latter is identified as *Psylla venusta* (later later in it to be *Pachysylla celtis mima*); reply to J. Fletcher's "Correspondence!" (*op. cit.*, Feb. 18 Mch. 1883, v. 15, p. 40). Rev., 3721], stating that *Celtis occidentalis* occurs in Vancouver, Quebec, but author was not met with it at Cowansville, Mass. (see p. 168), and criticising the orthography of the term *Celtis*. (B: P. M. 3728)

Jaworowski, Anton. Über die Entwicklung des ruckeng flüsses und speciell der musculatur bei *Chironomus* und einigen anderen insecten. (Sitzungsber. d. k. akad. d. wissensch. Wien, 1879, v. 80, pt. 1, p. 238-258, pl. 1-5.)

Separate. (Wien, 1879.) f. p. cover, 20 p. 5 pl. 15 × 16, 117.5 × 10.

Abstract, by P. Mayer. (Zool. jahresber. f. 1880, 1881, abtheil. 2, p. 107.)

Abstract. (BERTKAU, P. Bericht. Zool. entom. f. 1879, 1881, p. 115.)

Literature (10 titles), the main conclusions are that "each nucleus on the contractile wall of the dorsal vessel belongs a muscle cell, each ring muscle consists of two lateral cells which are only partly grown together at a median line, parts of the muscle-cells serve as..." (G. D. 3727)

Keyserling, Eugen. Neue spinnen aus Amerika. 1. (Verhandl. k.-k. zool.-bot. gesells. in Wien. 1879, bd. 29; Abh., p. 293-350, pl. 4.)

Includes descriptions of *lacanzovskia, castanaria, d. stenochrus*, 13 new genera of *araneina*; and of *epira punctillata, e. ballimorans* and *tetragnatha illinoensis* (3 new species from North America) [United States]; re-describes *cyrtarachne corrugera, histaria capitata* and *f. liberulata*, from southern United States. (G. D. 3731)

Keyserling, Eugen. Neue spinnen aus Amerika. 2. (Verhandl. k.-k. zool.-bot. gesells. in Wien. 1880, bd. 30; Abh., p. 517-582, pl. 16.)

Advance notice. (Amer. nat., June [21 May] 1880, v. 14, p. 168.)

Notice. (Amer. nat., Oct. [21 Sep.] 1880, v. 14, p. 740.)

Includes descriptions of *pronous* and *curymochus* 2 new genera of *araneina* and of *epira protractifida* and *diptyma solitaria*, 12 new species from North America [United States]; re-describes *metacargera* from Antilles, Cayenne, and Mexico. (G. D. 3731)

Keyserling, Eugen. Neue spinnen aus Amerika. 3. (Verhandl. k.-k. zool.-bot. gesells. in Wien. 1881, bd. 31; Abh., p. 269-314, pl. 11.)

Describes 30 new species of *araneina*; incl. des descriptions of *azilia, cyrtognatha* and *liacranoides* (1 new genera), and of *epira cavatica, calotes juvenilis* and *liacranoides nivalior* (from caves of Ky.), *diptyma volupis, d. volupis, xysticus venulilis, v. feroculus, misumma imbricata, thomisus bigibbosus*, and *phidromus lentiginosus* (from United States) and *scelopops insularis* (from Porto Rico, W. I.). (G. D. 3732)

Keyserling, Eugen. Neue spinnen aus Amerika. 4. (Verhandl. k.-k. zool.-bot. gesells. in Wien. 1882, bd. 32; Abh., p. 195-226, pl. 15.)

Describes *segestrioides*, a new genus of *araneina*, *pachygnathus tristifida*, from "Boston," many new species of *araneina* from South America, and some from "Colorado" (N. A.). (G. D. 3733)

Klemensiewicz, Stanislaus. Zur näheren kenntniss der hautdrüsen bei den ruppen und bei *malachius* (Verhandl. d. k.-k. zool.-bot. gesells. in Wien. 1882, bd. 32; Abhandl., p. 459-474, pl. 21-22.)

Abstract, by C. S. Minot, entitled "Epidermal glands of caterpillars and *malachius*." (Science, 9 Nov. 1883, v. 2, p. 672-17 cm.)

Literature (4 titles), description and figures of the external glands of the larvae of *liparis dispar, leucopha salicis, portheia angustata, papilio nichaon, lepyria rinalta* and *z. mossa* (1), and of the excretable gland (the imago of *malachius*; mention on his own or others' authority) of glands in larvae of *argyria gemstrigma, o. fasciella, liparis detrita, l. enba, papilio asterias, p. podalirius, thais polyxena, doritis apollo, d. mni nosyon*; in larvae of all European species of *zancusa, melibea* and *argynnis*; and in larvae *l. bryophila, most callista, habroseta, clophana linari, e. aporia crataegi*, many *satyridae, apte in nebulosa, leucania straminea, l. hispanica* and *l. unagrioides*; mention on authority of L. Boulenger, of excretable gland in imago of *anthracinus posticus* and *chrysobothris*. (G. D. 3734)

Künckel d'Heroulais, Jules. Recherches morphologiques et zoologiques sur le système nerveux des insectes diptères. (Comptes-rendus Acad. sci. France, 1 Sept. 1879, v. 89, p. 491-494.)

Notice. (Month. Journ. sci., Oct. 1879, s. 3, v. 1, p. 703.)

Abstract, by P. Mayer. (Zool. jahresber. f. 1879, 1880, p. 483.)

Abstract, by E. Burgess. (Psyche, March [1 May] 1880, v. 3, p. 39.)

General considerations on the nervous system of diptera, and on its application to their classification.

G: D. (3735)

Künstler, J. Sur une forme aberrante du phylum *sporozoa*. (Comptes-rendus Acad. sci. France, 10 Mar. 1884, v. 98, p. 633-634.)

Peculiarities and development of a species of gregarina parasitic in the intestinal canal of *periplaneta americana* [corr.].

G: D. (3739)

Laboulbène, Alexandre. Sur les différences sexuelles du *coraeus bifasciatus* et sur les prétendus œufs de cet insecte coléoptère nuisible au chêne vert. (Comptes-rendus Acad. sci. France, 25 Feb. 1884, v. 98, p. 539-541.)

Notes on the anatomy of the genitalia, and on the supposed eggs of *coraeus bifasciatus* which were found to be in reality the expanded abdomens of some species of acurid (near *tyroglyphus*); the ovoid abdomens of these mites contained eggs, and called to mind the abdomen of *pulex penetrans*.

G: D. (3737)

McLachlan, Robert. *Eucalyptus* galls. (Entom. mo. mag., Dec. 1880, v. 17, p. 145-147, 2 fig.)

Crit. rev., [by C: V. Riley], entitled "Galls on *eucalyptus*." (Amer. nat., May [16 Apr.] 1881, v. 15) (RILEY, C: V. Entomology . . . [May 1881] p. 402.)

Description and figures of galls, supposed to be dip-
terous, on *eucalyptus gracilis*, and of galls, supposed to be lepidopterous (pyralid) on a species of *eucalyptus*, in Australia.

B: P. M. (3738)

Muellerhoff, K. Die bedeutung der ameisen-säure im honig. (Deutsch-amer. apothzeitung, 1 Nov. 1884, jahrg. 5, p. 494-495, 32 cm.)

Abstract of a paper read before 57th assembly of German naturalists and doctors, at Magdeburg, Sept. 1884; Honey, when thus sealed in the comb, is preserved by formic acid [C11H2O2] from the sting of the bee, and the bee-keeper can preserve honey that has not been sealed in comb by adding this acid; price of the acid, and amount of it required; consideration of the changes which formic acid produces in honey.

G: D. (3739)

Müller, Fritz. "Blumen der luft." (Kosmos, May 1878, bd. 3, p. 187, 10 cm.)

Note on the agreeable odor of the male of *papilio grayi*.

G: D. (3740)

Müller, Hermann. "Asa Gray. Darwin's werk über die wirkungen der kreuz und selbst-befruchtung im pflanzenreiche." (Bot. jahresbericht . . . Just, 1877, v. 5, p. 743, 5 cm.)

Notice of Asa Gray's "Fertilization of orchids through the agency of insects" (Amer. Journ. sci. and arts, 1862, v. 84, s. 2, v. 34: July, p. 138-144; Nov., p. 420-420) [Rec., 2410].

W: T. (3741)

Müller, Hermann. Ueber die besonderen beziehungen zwischen pflanzen und insecten, welche sich auf inseln darbieten. (Bot. jahresbericht . . . Just, 1876, v. 4, p. 941-942.)

Rev. of A. R. Wallace's "President's address" of the British association for the advancement of science—[40th meeting]—Glasgow meeting, 1876—Section of biology [Rec., 2302].

W: T. (3742)

Müller, Hermann. Darwin's werk: "Ueber die wirkungen der kreuzung und selbst-befruchtung im pflanzenreich" und seine bedeutung für unser verständniss der blumenwelt. (Kosmos, Apr. 1877, v. 1, p. 57-67.)

Rev. of C: Darwin's "The effects of cross and self-fertilization in the vegetable kingdom" [Rec., 2366].

W: T. (3743)

Müller, Hermann. Die wirkungen der kreuzung und selbstbefruchtung im pflanzenreiche. (Bot. jahresbericht . . . Just, 1876, v. 4, p. 936-938.)

Rev. of C: Darwin's "The effects of cross and self-fertilization in the vegetable kingdom" [Rec., 2369].

W: T. (3744)

Müller, Wilhelm. Ueber einige im wasser lebende schmetterlingsraupen Brasiliens. (Arch. f. naturgesch., 1884, jahrg. 50, heft 2, p. 194-212, pl. 14.)

Describes and figures the aquatic larva of *cataclysta pyropalis*, a Brazilian pyralid, with especial reference to the anatomy of its respiratory system, in which oxygenation takes place entirely by tracheal gills; describes the larval case, and the pupa which has two pairs of open stigmata; explains the building and structure of the aquatic pupal case, and how pupal respiration is possible in it; the larva never leaves its case, feeds upon unicellular algae, and lives with its dorsum toward the stone to which the larval case is attached, having its ventral surface dark colored and its dorsal surface light, while the reverse of this coloration is found in the pupal state; notes on larvae of other species of the genus *cataclysta*.

G: D. (3745)

Osborn, Herbert. The ash saw fly: *selandria harda* Say. (Bull. Iowa agric. coll., Aug. 1884, no. 2, p. 80-83, pl. 3, fig. 9.)

Partial life history, habits and parasites of and means against *selandria harda*, injurious to *fraxinus*; eggs and larvae described.

G: D. (3746)

Osborn, Herbert. The corn root worm: *diabrotica longicornis*. (Bull. Iowa agric. coll., Aug. 1884, no. 2, p. 61-69, pl. 2.)

Life history of *diabrotica longicornis*; extent of its injuries to corn (*zea mays*); much of the account is slated to be copied from a report by Prof. S. A. Forbes.

G: D. (3747)

Osborn, Herbert. An epidemic disease of *caloptenus differentialis*. (Amer. nat., Dec. [28 Nov.] 1883, v. 17) (RILEY, C: V. Entomology... [Dec. 1883]), p. 1286-1287.

Reprint and crit. rev. of Riley's note, in author's "Notes on locust parasite" (Bull. Iowa agric. coll., Aug. 1884, no. 2, p. 83-86).

Note of *entomophthora calopteni*, a fungus parasite in *caloptenus differentialis*. [A note by C: V. Riley follows, in which he suspects "that the *entomophthora* is a result rather than a cause of disease and debility in this case.,"] G: D. (3718)

Osborn, Herbert. External parasites of domestic animals. (Bull. Iowa agric. coll., Aug. 1884, no. 2, p. 69-79.)

General notes on external parasites of vertebrates; brief descriptive and other notes on certain species of *pediculidae*, *mallophaga*, *sarcoptidae* and *ixodidae*; remedies for different kinds of parasites. G: D. (3749)

Osborn, Herbert. Gall and blister mites. (Bull. Iowa agric. coll., Aug. 1884, no. 2, p. 54-61, pl. 1.)

Reprint, with a few alterations and additions, of author's "Leaf and gall mites" (Trans. Iowa state hortic. soc., 1883, v. 18, p. 127-135) [Rec., 3753].

G: D. (3750)

Osborn, Herbert. Insecticides and their application. (Bull. Iowa agric. coll., Aug. 1884, no. 2, p. 105-107.)

Brief popular account of the more commonly used insecticides and how to use them. G: D. (3751)

Osborn, Herbert. Insects of the orchard. (Bull. Iowa agric. coll., Aug. 1884, no. 2, p. 87-97.)

Notes on habits and ravages of 27 species of rhynchota known to infest orchards, with bibliographical references "to the works that contain the principal notes on each species." G: D. (3752)

Osborn, Herbert. Leaf and gall mites. (Trans. Iowa state hortic. soc., 1883, v. 18, p. 127-135.)

Reprint, with slight changes, entitled "Gall and blister mites." (Bull. Iowa agric. coll., Aug. 1884, no. 2, p. 54-61, pl. 1.)

A popular account of the habits and life-history of the *phytoptidae*; especial mention of *phytoptus pyri* and *ph. quadripes*, and of species on *alnus*, *fraxinus* and *negundo*. G: D. (3753)

Osborn, Herbert. Notes on locust parasite. (Bull. Iowa agric. coll., Aug. 1884, no. 2, p. 83-86.)

Reprint of author's "An epidemic disease of *caloptenus differentialis*" [with Riley's note] (Amer. nat., Dec. [28 Nov.] 1883, v. 17, p. 1286-1287) [Rec., 3748], and of C: E. Bessey's "A new species of insect-destroying fungus" (*op. cit.*, p. 1280-1281) [Rec., 3079], with addition of further notes showing that *entomophthora calopteni* is a true parasite of the *caloptenus*. [Contains numerous typographical errors, not in the original articles.] G: D. (3754)

Osborn, Herbert. The pine louse. (Bull. Iowa agric. coll., Aug. 1884, no. 2, p. 97-105, pl. 3, fig. 10.)

Bibliography, habits, life-history, and arthropod enemies of *chermes pinicorticis*. This paper is an amplification of the author's "On a species of plant-louse infesting the Scotch pine" (Trans. Iowa state hortic. soc., 1879, v. 14, p. 96-107) [Rec., 3756]. G: D. (3755)

Osborn, Herbert. On a species of plant-louse infesting the Scotch pine. (Trans. Iowa state hortic. soc., 1879, v. 14, p. 96-107.)

Observations on the life-history of *chermes pinicorticis*; descriptions of different stages, and notes on habits, classification, and insect parasites of and means against this insect. H. O. (3756)

Osborne, J. A. Caterpillars. (Nature, 2 Nov. 1876, v. 15, p. 7, 8 cm.)

Four out of nine lepidoptera that regularly pupate succinctly succeeded in pupating as *suspens* when the girdle of the pupa was cut just before pupation.

G: D. (3757)

Poisoning insects in herbarium specimens. (New remedies, July 1882, v. 11, p. 215, 9 cm.)

Describes a box specially arranged for applying the vapors of carbon disulphide [CS₂] to herbarium specimens. G: D. (3758)

Riley, C: Valentine. Dipterous enemies of the *phyloxera vastatrix*. (Can. entom. Feb. [9 Mch.] 1883, v. 15, p. 39.)

Crit. rev. of T: W. Fyles' "Description of a dipterous parasite of *phyloxera vastatrix*" (*op. cit.*, Dec. 1882 [29 Jan. 1883], v. 14, p. 237-239) [Rec., 3720]; the characters given of *diplosis grassator* are not sufficient to distinguish the species; the galls of *phyloxera vastatrix* (*vitifoliae*) are inhabited by another enemy, named *leucopis phyloxerae* in author's MS.; comparison of larvae and pupae of these two diptera. B: P. M. (3759)

[**Riley, C: Valentine.**] Galls on *eucalyptus*. (Amer. nat., May [16 Apr.] 1881, v. 15) (RILEY, C: V. Entomology... [May 1881]), p. 402.

Crit. rev. of R. McLachlan's "*Eucalyptus* galls" (Entom. mo. mag., Dec. 1880, v. 17, p. 145-147) [Rec., 3738]; the supposed dipterous galls probably ecidomyidous; the supposed lepidopterous galls probably not lepidopterous, but inhabited by a lepidopterous inquiline. B: P. M. (3760)

Riley, C: Valentine. Hackberry psyllid galls. (Can. entom., Aug. [5 Sep.] 1883, v. 15, p. 157-159, fig. 6-7.)

Crit. rev. of T: W. Fyles' "The parasite of *phyloxera vastatrix*, and the gall insect of the nettle tree" (*op. cit.*, [20] May 1883, p. 83-84) [Rec., 3728]; *phyloxera vitifoliae* has many parasites and *celtis* is attacked by many species of gall-insects; description of characters of *pachypsylla* n. g.; figures of galls of *pachypsylla* [*celtidis venusta* and *p. c. mamma*, to the latter of which species belongs the insect described in Fyles' "Notes on a gall mite of the nettle tree, *celtis occidentalis*" (*op. cit.*, Oct. [14 Dec.] 1882, v. 14, p. 108-109) [Rec., 3727]; *psylla c. grandis* = *pachypsylla venusta*; derivation and orthography of the generic term *celtis*. B: P. M. (3761)

Schilde, Johannes. Frühlingsbeobachtungen über die naturimmanente erzeugung der flügelpracht und anpassung von schmetterlingen. (Entom. nachrichten. May 1884, jahrg. 10, p. 141-147.)

Separate. [Berlin, 1884.] 7 p., 23 × 14, t. 16 × 9.5.

The author argues against the views held by Darwin, Weismann, and Lubbock in regard to the origin of certain types of coloration in butterflies' wings.

G: D (3762)

Scudder, S: Hubbard. The pine moth of Nantucket, *retinia frustrana*. (MASSACHUSETTS SOCIETY FOR THE PROMOTION OF AGRICULTURE. Publications.) BOSTON, A. Williams & co., 1883. t.-p. cover, 20 [+ 2] p., 1 col. pl., 24 × 15. t. 17 × 10.

Notice. (Nation [N. Y.], 19 Apr. 1883, no. 929, v. 36, p. 341, 5 cm.)

Habits and description of *retinia frustrana*, a new species, which attacks *pinus rigida* in Nantucket, Mass.; description and colored figures of the larva, pupa and imago, and of twigs of *pinus* attacked by this insect; notes on other species of *retinia*. Appended [p. 182.] is a notice of and extract from J: H: Comstock's "Report of the entomologist" (Rept. [U. S.] Commiss. agric. for 1879, 1880), p. 233 238.

G: D (3763)

Sograff, N. Zur embryologie der chilopoden. Vorläufige mittheilung. (Zool. anzeiger, 6 Nov. 1882, jahrg. 5, p. 582-585.)

Researches on the embryology of chilopoda, chiefly based on two species of *geophilus*.

G: D (3764)

South, Richard. On the urticating hairs of some lepidoptera. (Entomologist, Jan. 1885, v. 18, p. 3-6.)

Notes on the urtication produced by larvae, cocoons, and possibly by the imagos of certain lepidoptera, among which *liparis auriflua*, *bombyx rufi* and species of *cuethocampa* are especially mentioned; discusses causes of the urtication; quotes from T. P. Bigg-Wither's "Pioneering in Brazil," in regard to stinging caterpillars in Brazil.

G: D (3765)

Speziesfrage (Zur). (Entom nachrichten, 15 Nov. 1881, jahrg. 7, p. 321-323.)

Extract (from the *Korrespondenzblatt der Irmitischia*, 1881, no. 10) of the report of a lecture, delivered 3 July 1881, in Erfurt, Thuringia, by Dr. Schmeideknecht, of Gumperta, on the difficulty of defining limits for species and varieties, based especially on studies of *bombus*.

G: D (3766)

Trimen, Roland. Protective resemblances in insects. (Entomologist, Feb. 1885, v. 18, p. 25-30.)

Part of an address on mimicry among insects including spiders, delivered at the annual meeting of the South African philosophical society.

G: D (3767)

Trouessart, E. L. and Mégnin, P. Sur la classification des sarcopites plumicoles. (Comptes-rendus Acad. sci. France, 21 Jan. 1884, v. 98, p. 155-157.)

Modifications are proposed in the classification of the *analgesinae*, with some notes on the synonymy of certain genera.

G: D (3768)

Wallace, Alfred Russell, see BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE—[10th meeting]—Glasgow meeting, 1876—Section of biology. President's address [Rec., 2302].

Walsh, B: Dann. The grape-leaf gall-louse. *Dactylospheera vitifoliæ*, Fitch. (1st ann. rept. acting state entom. Ill., 1868, p. 21-24.) (Trans. Ill. state hort. soc. for 1867, n. s., v. 1, 1868; Appendix, p. 21-24.)

Remarks on the natural restriction of the ravages of *phylloxera vitifoliæ* to the leaves of certain species and varieties of *vitis*, and on the rule that a given species of *aphididae* or *coccidae* is generally confined to a given species of plant, and invariably to a given family; discussion of the synonymy of *dactylospheera globosa*, the male of which is *phylloxera caryaeglobuli* and the female is *d. [ph.] caryaesemen*; *hamamelistes cornu* = *hormaphis hamamelidis*; description of habits and of gall and insects of *d. [ph.] caryaesemen* n. sp.; list of species and galls of *dactylospheera* known to the author; references to discussions of the characters of the genera mentioned.

B: P. M. (3769)

[Walsh B: Dann and Riley, C: Valentine.] The joint-worm. *Isosoma hordei*, Harris. (Amer. entom., Apr. 1869, v. 1, p. 149-158, 388 cm., fig. 113-118; p. 185, 1 cm.)

Ravages, food-plants and indications of the attacks of *isosoma hordei*; seasons, habits and parasites, phytophagic variation and generic classification of and means against this insect; figures of male and female imago; figures of male and female imagos of *scmiotellus chalcidiphagus* n. sp., *erytoma* sp. and *decatoma* sp., and of female imago of *antigaster mirabilis*; protective habits of various insects.

B: P. M. (3770)

Webster, Francis M. Notes from Illinois; grain-feeding habits of field cricket. (Amer. nat., June [20 May] 1882, v. 16, (RILEY, C: V. Entomology.... [June 1882]), p. 513-514.)

Reprint, entitled, "Habits of field crickets." (Sci. amer., 17 June 1882, v. 46, p. 283, col. 2, 13 cm.)

Notes on *gryllus*, *epicauta pennsylvanica*, *diabrotica fossata* and *d. longicornis* as destroyers of corn [zea mays].

G: D (3771)

Weir, J: Jenner. Danaine butterflies not subject to the attack of mites. (Entomologist, July 1882, v. 15, p. 160-161.)

Species of *danaidae* and *papilio pammon* in collections seem to be distasteful to mites; quotations of other authorities on the same subject.

G: D (3772)

Weir, J: Jenner. Effect of temperature on lepidoptera. (Entomologist, May 1882, v. 15, p. 115-116.)

Sudden paralyzing of *vanessa urticae* by cold.

G: D (3773)

Weir, J: Jenner. Note on the use of naphthaline in cabinets for the protection of insect collections. (Entomologist, July 1882, v. 15, p. 165-166.)

The author warns lepidopterists against using C: A. Blake's cones of naphthalin in their collections.

G: D (3774)

Weir, J: Jenner. Notes on the lepidoptera-*r*h paleocera of Hudson's bay. (Entomologist, May 1881, v. 14, p. 97-100.)

Notice and crit. rev. [by C: V. Riley.] entitled "Hudson bay lepidoptera." (Amer. nat., July [22 June] 1881, v. 15, p. 572-573.) (RILEY, C: V. Entomology . . . [July 1881], p. 572-573.)

List of lepidoptera rhopalocera collected by Walton Lloyd, at Moose Factory, St. James' bay, British America, in 1879 and 1880; attempt to account for the relations of this fauna to that of Europe.

B: P. M. (3775)

Weir, J: Jenner. Variations in the colour of lepidoptera. (Entomologist, Aug. 1883, v. 16, p. 169-176.)

Discusses the various forms of aberrations (heteromorphism) in colors of lepidoptera under the names albinism, xanthism, melanism, heteropocillism, gynandochromism, and hermaphroditism; and the forms of constant variation (orthopocillism) under the names polymorphism, topomorphism, atavism, dimorphism, trimorphism and hercomorphism; gives examples of each of these forms of variation.

G: D. (3776)

Westhoff, Friedrich. Der maikäfer auf der wanderschaft. (11ter jahresber. d. westfäl. prov.-vereins f. wissensch. u. kunst. pro 1882. 1883, p. 9-12.)

Record of observation of a great swarm of *melolontha vulgaris* seen migrating from the west toward the east.

G: D. (3777)

Weyenbergh, H. Sobre la familia *pulicidae* con descripción de algunas nuevas especies. (Periódico zoológico argentino, 1881, v. 3, p. 261-268, 9-17.)

Separate. Córdoba, 1881. t. p. cover+p. 261-268, 9-17, 23×17, t 16.5×10.

List of 53 species of *pulicidae* and their hosts; describes, as new species, *ceratophyllus rufulus* (from *ceruus rufus*), *c. isidori* (from *vespertilio isidori*), *fulax* (*hectopsylla?*) *testudo* (from *strix perlata*), *p. nasuae* (from *nasua socialis*), *f. obscurus* (from *canis azaræ* and *c. gracilis*), *p. concoloris* (from *felis concolor*) and *p. cavicola* (from *canis leucopygus*).

G: D. (3778)

Williston, S: Wendell. An anomalous hombylid. (Can. entom., Nov. 1879, v. 11, p. 215-216.)

Description of a new species [unnamed] of *anthrax*, with remarks on anomalous venuration in the wings of one specimen of this species.

B: P. M. (3779)

Williston, S: Wendell. On the classification of North American diptera. 1st paper. (Bull. Brooklyn entom. soc., Feb. 1885, v. 7, p. 129-139, 3 fig.)

Separate. [Brooklyn, N. Y., 1885.] t.-p. cover + p. 129-139, 22 × 15, t 16.5 × 10.

General characters of the *syrphidae*; table of the genera of North American *syrphidae*; discusses the characters and their value in the genera *euceratomyia*, *merapioides*, and *pelococera*.

G: D. (3780)

Williston, S: Wendell. Dipterous larvae from the western alkaline lakes and their use as human food. (Trans. Conn. acad. arts and sciences, July 1883 [Sept. 1881], v. 6, p. 87-90, 1 fig.)

Separate. [New Haven, Ct., Aug. 1883.] p. 1-4, 23 × 15, t 17.5 × 10.5.

Account of the dipterous larvae, living in alkaline lakes of Nevada and California, which are used as food by Pac-Ute Indians; figure of the larva and description of the imago under the name of *ephydra californica*, under which name A. S. Packard, jr. has already described larvae presumably of the same species; an account of the mode of preparing the larvae for food is quoted from a letter by W: H. Brewer. *G: D.* (3781)

Williston, S: Wendell. On the North American asilidae (*dasygogoninae*, *laphrinae*), with a new genus of *syrphidae*. (Trans. Amer. entom. soc., Dec. 1883, v. 11, p. 1-35, pl. 1.)

Table of genera of North America *dasygogoninae* and *laphrinae*; describes one new genus, *lestomyia*, of the *dasygogoninae*, and one, *nauisgaster*, of the *syrphidae*; describes 22 new species of *asilidae* and one of *syrphidae*.

G: D. (3782)

Williston, S: Wendell. On the North American *asilidae*. Part 2. (Trans. Amer. entom. soc., Jan. 1885, v. 12, p. 53-76.)

Continuation of author's "On the North American *asilidae* (*dasygogoninae*, *laphrinae*), with a new genus of *syrphidae*" (*op. cit.*, Dec. 1883, v. 11, p. 1-35) (Rec., 3782). Tables of genera of *asilinae*, and of species of *laphria*, *mallophora*, *pramachus*, *crax*, and *proctocanthus*; describes 10 new species and gives numerous synonymical notes.

G: D. (3783)

Williston, S: Wendell. North American *conopidae*: *stylogaster*, *dalmannia*, *oncomyia*. (Trans. Conn. acad. arts and sciences, July 1883 [Sept. 1884], v. 6, p. 91-98.)

Separate. [New Haven, Ct., Aug. 1883.]

p. 5-12, 23 × 15, t 17.5 × 10.5. Describes the following new species: *stylogaster neglecta*, *dalmannia picta*, *oncomyia modesta*, and *o. baroni*; redescibes several species belonging to the same genera.

G: D. (3784)

Wilson, Owen S. Remarks on rearing lepidopterous larvae in confinement. (Entomologist, Feb. 1883, v. 16, p. 47-48.)

Description of a mode of rearing larvae of lepidoptera in anchovy jars.

G: D. (3785)

Worthington, C: Ellis. A model collecting box. (Our home and science gossip, Sept. 1881, v. 5, p. 103, col. 2-4, 38 cm.)

Description of an excellent field-collecting box, capable of preserving small lepidoptera for a long time longer, and containing several conveniences.

B: P. M. (3786)

Wright, W. T. Hermaphrodite *odonestis potatoria*. (Entomologist, Aug. 1883, v. 16, p. 188.)

Description of a specimen of *odonestis potatoria* in which the right antenna is that of a male and the rest of the insect's female.

G: D. (3787)